

# K.A.T.S. KOMPUTER KNEWS [K.A.T.S.]

## KANSAS AREA TIMEX SINCLAIR USERS GROUP

VOL 4 NO 6

JULY 1989

### SUPER COMPUTER PERIPHERALS

In the section of TS Communique in Time Designs Magazine SEPT/OCT Vol 4 No 6 is several letters of interest about the non-linearity of the TS 2040.

Several letter writers sent in information on this subject. But as these persons state, not all, large printers are linear either Paul Synder of Chattanooga, TN sent in a program to help you if you want to determine the corrections of your TS 2040.

Dick Wagners orginal article in May/June '85 TDM states corrections that helps his 2040 plus his Panasonic printer. In my article paragraphs four and five comment on this problem. My 2040 prints, a rectangle taller than wide when I screenndraw a square. What I, am doing in this article is to multiply the X axis by 1.24 to make it print 24% wider. The copy command makes this a square on the printer from a rectangle on the screen. For my Panasonic, the X axis is wider so I multiply the Y axis dimension by 1.18. Of course the opposite axis can be divided by the same numbers, depending upon the desired final printed size.

Use the multiplier in the DRAW part of a program as DRAW 1.24\*80,0 for a longer horizontal line or DRAW 0,1.18\*80 for a vertical line. This won't work for the CIRCLE command, so apply the same approach to the circle formula. Multiply the COSINE part of the formula by 1.24 for the 2040, or the SINe part of the formula by 1.18 for the Panasonit printer.

To calibrate a printer, print a large square on the screen and then COPY to the printer. Use a metric or decimal scale. Measure the printed image. (Use decimal, which is preferred). The ratio of the larger dimension to the, smaller (divide) will give the correction factor.

This letter was from Dick Wagner written in response to a letter, to Time Designs Magazine and TS Communique column written by Joe Williamson dated SEPT/OCT 1988.

### Paul Synder's T/S 2040

Program to check non-linearity of your printers.

200 PLOT 0,174: DRAW 54,0: DRAW 0,-54: DRAW -54,0: DRAW 0,54

202 LET C=27: LET R=25: FOR N=0 TO 2#PI STEP PI/90: PLOT C+R#CO S N,147+R#SIN N: NEXT N

210 PLOT 0,114: DRAW 54±1.13,0: DRAW 0,-54: DRAW -54±1.13,0: DRAW 0,54

212 LET C=27±1.13: LET U=25: LET M=U±1.13: FOR N=0 TO 2#PI STEP PI/90: PLOT C+H#COS N,87+U#SIN N: NEXT N

220 PLOT 0,54: DRAW 54±1.23,0: DRAW 0,-54: DRAW -54±1.23,0: DRAW 0,54

222 LET C=27±1.23: LET U=25: LET H=U±1.23: FOR N=0 TO 2#PI STEP PI/90: PLOT C+H#COS N,27+U#SIN N: NEXT N

230 PRINT AT 2,10;"NO CORRECTION"; AT 9,10;"CORRECTED FOR SCREEN"; AT 10,10;"HORIZONTAL DIMENSIONS"; AT 11,10;"MULTIPLIED BY 1.13"; AT 17,10;"CORRECTED FOR PRINTER"; AT 18,10;"HORIZONTAL DIMENSIONS"; AT 19,10;"MULTIPLIED BY 1.23"

240 LPRINT "": COPY : LPRINT "": LLIST 200

299 STOP

So we can gather that everyone of us has some sort of linearity problem. Either vertical or horizontal in scope. My next problem is to do what my mentor said to do! INPUT this Program and check it out! Your view of the problem will change quite a bit.

This brief column on the non-linearity of printers was printed in Time Desings Magazine dated-- SEPT/OCT '89 VOL 4, NO . 6 I am using it to disperse information to club members that experience problems simular of these stated in the letters written to TDM, and TS communique column written or wrote to Joe Williamson.

### MONTH OF MAY MEETING MINUTES

Discussion of the PDL was very short before meeting began by myself and two other members before others in the group arrived. And after that the Game of Castle was enjoyed by those their. We have received several good games which we have enjoyed at this meeting. Randy Cummings our resident GURU on games demostrated it, and said that this game is currently the most popular game on the BBS in the area. But under another name

Received many newsletters from exchanging groups they include-- ZX-APPEAL, VISTA, SINCLINK, CATS HACKER, KATS, SINC TIMES, ISTUG. If any one is interested in the Library they should come to the next meeting (library is at each meeting. So come and read even, take home for the programs & etc they contain a lot of help plus.

Received a letter of interest from Chuck Ridgway wanting correspondence with us. he would like, programs from our own Group PDL, or our personal PDL's he enclosed a list of his PDL which is a list of the ISTUG PDL. If any person, is interested you may correspond with him or if no takers I will.

Also received flyers from Curry Computer and Software ETC.

Above mention of programs in the newsletters on that has at least two is ZX-APPEAL. This month of MAY has a Tape Correction from, Kristian Boisvert and copyright, 1988 BYTE POWER. This program even works on programs saved in Fast Save ( 2+ FAST,TurboLoader) This Item from ZX-APPEAL May '89

To the people who like Hardware way in the same issue is the ZX-Breadboarder Project #2 By FRED Nachbaur. Its called DIGI DUBBER Fred has created a passive device as compaired to his other creations which needed a power source

So come and read get a program talk over a problem on hardware or software. SEE YOU JUNE 12 '89

## K.A.T.S. USERS GROUP

The "KATS KOMPUTER KNEWS" is the official publication of The Kansas Area Timex Sinclair Users Group. We are a non-profit organization that supports all TIMEX/SINCLAIR Computers.

Membership to KATS USERS GROUP is \$10.00 per year which includes the receipt of the group newsletter "KATS KOMPUTER KNEWS".

Please remit the above to:

PAUL D. REYNOLDS  
P.O. BOX 17579  
WICHITA, KS 67217

Meetings are held on the second and fourth Tuesdays of each month in the Sedgwick County Courthouse 9th floor at 7:00 PM. Parking is available North of the Courthouse. Please enter and sign in at the the North entrance as required by law. The public is welcome.

For further information please call or write one of the K.A.T.S Users Group Officers listed below:

### PRESIDENT

Paul D. Reynolds  
address above  
(316) 529 2575

### VICE-PRESIDENT

Randy Cummings  
124 W 10th  
Andover, KS 67002  
(316) 733 0242

Suggestions, Criticism and articles welcome.....

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K.A.T.S.  
c/o PAUL D. REYNOLDS  
P.O. BOX 17579  
WICHITA, KS 67217



FROM RMG ENTERPRISES  
1419 1/2 7TH ST  
OREGON CITY, OR 97045  
(503) 655-7484

CLONE operates in an unmodified TS2068, a TS2068 with a Spectrum ROM installed, or a TS2068 with some other Spectrum emulator, provided that the ROM (the EXROM) has not been removed. CLONE, in its present form, will not work with an "honest to goodness" Spectrum.

CLONE contains three ways to make backup copies of your tapes.

1. Tape-to-Tape copier. A very streamlined version.
2. Header Reader
3. BLOCK COPY method.

The Tape-to-Tape method uses two tape recorders, conditioning the source signal for a better copy.

For those who have used a HEADER program before, you know how useful they are. It will tell how a program is laid out in memory, how much machine code is contained, how large BASIC programs are and if variables have been SAVED within the program.

BLOCK COPY method is much easier to use than HEADER READER and it copies some things that can't be conventionally SAVED/LOADed. It

CONTINUED ON NEXT COLUMN

## CLONE Review Continued

can copy headerless data blocks, blocks with nonstandard flag bytes, intentionally scrambled parity bytes, and data blocks that are deliberately inconsistent with header information.

BLOCK COPY can copy programs that have a combined length of 47.5 K in one pass. For example:

LOADER: 933 Bytes  
SCREEN: 6912 Bytes  
M CODE: 27764 Bytes

35609 Bytes

The above example is under 47.5K so it can be handled in one rather simple operation.

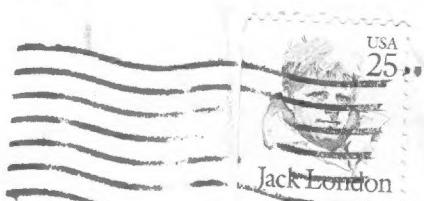
Programs that have a combined total length greater than 47.5K can be multiple pass copied. This is another reason the HEADER method helps. If the total bytes of all parts of a program are anywhere near 47.5 K in length, you should copy that program in parts.

CLONE is a super program for use in making you personal backups.

Contact RMG for the current price and availability. Tell them that you read about CLONE in The KATS KNEWS.

## COMMENT :

Thanks to Paul Reynolds for his continued efforts in keeping our KATS KNEWS coming out. Paul has received little help these past few months but has kept on going. He could use your help. Can't you help out with an article, review or program listing?



C RAGIST  
c/o Donald Lambert  
3319 Clover Dr. S.W.  
Cedar Rapids IA 52404